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## SERVICE-LEARNING IN GERONTOLOGY: AN OUT-OF-CLASSROOM EXPERIENCE

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*Service-learning is a useful means of helping students understand gerontology. It allows for the ideal integration of theory, research, and application of the study of aging. Students provide meaningful service to the community, by engaging in direct contact with members of the populations they are studying while integrating course content with real-world experience. Students gain additional insight by participating in reflective activities in class discussions; through journal keeping and other writing assignments; and in meetings with instructors, other students, and professional staff members who provide support and services to the older adults at service-learning sites. In this study, qualitative data on service-learning were obtained from 104 students over two consecutive semesters. Content analysis identified six themes: (a) insights about aging and older adults, including overcoming negative stereotypes; (b) enhanced feelings of pride, self-worth, and personal efficacy from being able to provide a valued and needed service to older adults in the community; (c) the value and importance of service and volunteering; (d) the realities, both positive and negative, of long-term care for older adults; (e) awareness of previously unrecognized skills and consolidation of future career goals; and (f) integration of course work on aging and service-learning experiences. Potential strategies to overcome students' initial reservations regarding service-learning and to maximize students' positive experiences with service-learning in gerontology are presented.*

Service-learning is a credit-bearing educational experience in which students participate in an organized service activity that meets

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identified community needs and actively engages students in reflection to increase understanding of course content, provide broader appreciation of the discipline, and enhance students' sense of civic responsibility (Eyler & Giles, 1999; Zlotkowski, 1998). Service-learning is far more than extracurricular voluntary service, but it is not the same as a practica or internships, both of which require preparatory skills and hierarchically linked classes that lead to student competence and development of the greater skills and abilities necessary for success. Service-learning is a course-based community service experience that produces its best outcomes when meaningful volunteer service is related to course material (Zlotkowski, 1998).

Eyler and Giles (1999) described the holistic nature of experiential education typified by service-learning programs: "Experience enhances understanding; understanding leads to more effective action. Both learning and service gain value and are transformed when combined in the specific types of activities we call service-learning" (p. 8). Pedagogy in service-learning is designed to meet multiple educational goals (e.g., enhance student insights about citizenship in the community, the discipline they are studying, and the meaning of service) through reflective activities. (Rhoads, 1998). Such reflective activities include directed writings, small-group discussions, and class presentations.

Unlike practica and internships, the experiential activity in a service-learning course is not necessarily skill based within the context of professional education (Bringle & Hatcher, 1996, as cited in Zlotkowski, 1998, p. xiv). Students who have no previous experience working with older adults (or any population to which they have had limited exposure) may actually benefit the most from service-learning in that they have the greatest potential for altering negative stereotypes and clarifying personal identity (Neururer & Rhoads, 1998). Rhoads (1998) highlighted the advantages of working with diverse others who at the beginning are total strangers to produce outcomes of mutual benefit, understanding, and potential for greater social good.

It is important to recognize that service-learning is a particularly salient feature of higher education as it exists today. In their mission statements, many colleges and universities claim to be committed to the processes of learning, searching, and serving. However, it has been only recently that institutions of higher education have become concerned with defining and documenting the last dimension (i.e., serving; Eyler & Giles, 1999). Service-learning has been said to be the "new mark of excellence" and a sign of "an engaged campus" (Boyer, 1994, p. A48). It has become a touchstone for institutions seeking to be recognized for their impact on students and, ultimately, for increasing students' sensitivities to and awareness of the importance of public service and

civic responsibility (Astin & Sax, 1998; Eyler & Giles, 1999; Neururer & Rhoads, 1998; Rhoads, 1998; Zlotkowski, 1998).

Zlotkowski (1998) viewed service-learning as one of the most visible demonstrations of Boyer's (1994, p. A 48) "new american college," an institution that not only rewards excellence in teaching and scholarship, but also successfully links thought to action and theory to practice. It may very well be through direct service that educational institutions leave their most enduring imprint on their students and their communities; service-learning presents the college or university as a good citizen of the community in which it is located. The goal is that through Service-Learning students will, on their own, be both more willing to become involved in the lives of others and committed to making a difference in their community (Astin & Sax, 1998; Neururer & Rhoads, 1998; Rhoads, 1998).

Recent analyses (Astin & Sax, 1998; Gray, Ondaatje, & Zakaras, 1999; Rhoads, 1998) have suggested that college students who engage in Service-Learning in fact do show an increase in civic responsibility, improve the quality of community services through their volunteer efforts, help to bring needed services to a greater number of people, and enhance community-institution relations. Astin, Vogelgesang, Ikeda, and Yee (2000) noted significant improvements among students participating in service-learning in academic performance in writing skills, critical thinking, and grade point average as well as increases in leadership and self-efficacy. Students participating in service-learning also become more value conscious in that they are committed to promoting racial understanding, activism, and service following college graduation. It is clear from the work of Astin and his associates that positive outcomes from service-learning depend greatly on students' degree of interest in the course material, the degree to which instructors encourage classroom discussion, and the skill with which instructors link service experience to course content and vice versa (Astin & Sax, 1998; Astin et al., 2000). Reflection activities are the most widely used and highly recommended methods for providing this linkage between course content and service experiences. More than 80% of students involved in one study of service-learning responded positively to the statement that their service "made a difference" (Astin et al., 2000, p. 3).

Research on student outcomes with service-learning is becoming more plentiful, but most studies have used structured interviews, participant observation, or survey forms (Astin & Sax, 1998; Neururer & Rhoads, 1998), which may have somewhat limited students' ability and freedom to express their views on their placements or on service-learning in general. Few studies have tapped students' personal reactions to their service-learning experiences in their own words by

using students' reflective journals or open-ended question formats as data sources (Rhoads, 1998). The purpose of the study in this article was to compile students' free-form reactions to service-learning within the context of gerontology course work to identify important and relevant themes.

The State University of New York at Oswego (SUNY Oswego) has been engaged in service-learning to address a specific community need: the social isolation of older adults in this rural community. Through grants from the Association for Gerontology in Higher Education; Generations Together/University of Pittsburgh, and the Foundation for Long Term Care, students have been involved in Service-Learning activities beginning in 1997. Social isolation was identified as an unmet community need in surveys from the Area Agency on Aging and by service providers for older adults. Although many older adults in the region are isolated from neighbors or family members during the winter months, health care providers and staff members at nursing homes and assisted-living facilities reported that even during good weather more than 50% of older adults rarely or never receive even a single visitor during the year. The goal of SUNY Oswego's service-learning program is to provide both positive benefits to older adults in need of social contact and worthwhile educational and personal experiences to students.

This study addressed the latter goal by assessing students' perceptions of their service-learning experiences using (a) informal discussions of students' reservations about service-learning at the beginning of their placement experiences and (b) qualitative analysis of students' final summaries in their own words at the conclusion of their placements. The expectation was that although students' initial reactions to the idea of participating in service-learning might have been negative and task oriented, their postexperience comments would reflect more positive themes integrating theory and practice in their "out-of-classroom experiences."

## METHOD

### Student Participants

This article summarizes the reactions of 104 undergraduate students (98 women, 6 men) to service-learning experiences with socially isolated older adults. Most students were enrolled in classes with a specific focus on aging or gerontology; 3 were enrolled in a basic course in

human services and public policy; and 2 were enrolled in an introductory composition course. More than 75% of the students were juniors or seniors.

## Procedure

The type of service activity most often completed by students was friendly visiting with older adults in private homes or apartments, assisted-living facilities, and nursing homes through programs and agencies such as the YMCA, the Department of Social Services, Meals on Wheels, Senior Nutrition Centers, and an Osteoporosis Prevention Program. Students also did friendly visiting through such volunteer positions as transportation aides and assistants in a variety of structured programs such as recreation, arts and crafts, pet therapy, movement and singing activities, and therapeutic interventions for groups of older adults who were clinically depressed, had experienced a stroke, or had Alzheimer's disease.

A total of 43 different placements throughout the community were made available to students. Brief descriptions of each placement and student role were distributed in target classes during the first week of the spring and fall 1999 semesters. Students were invited to call to set up a meeting with a contact person at a facility or agency to determine whether a particular placement would match his or her interests, schedule and preferences for activities and service-learning. Students were responsible for establishing their visiting schedule, documenting their participation frequency and duration, and obtaining verification of service-learning hours from site contact persons. In addition, students were allowed to find their own placements if none of the prearranged placements were appealing or convenient. For example, a student could visit an isolated elderly neighbor or acquaintance for his or her service-learning as long as that individual was not a relative.

The minimum requirement for service-learning was 20 hours of friendly visiting with socially isolated older adults. This is consistent with recent practices (Gray et al., 1999). However, service-learning was credited in one of three ways, and specific requirements were associated with each option (see Table 1). Students participated in service-learning as (a) a three-credit stand-alone service-learning course; a (b) one-credit add-on linked to a traditional three-credit course; or (c) a required component of a regular three-credit course.

All students who engaged in service-learning participated in a series of planned reflective activities, which included (a) discussion of their experiences as a regular part of class; (b) classroom lectures and readings that encouraged them to highlight issues and concepts from their

**TABLE 1** Academic Credit Options for Service-Learning

Course	Service hr	Class meetings	Papers	Journals
Stand-alone course (3 credits)	40+	8	8	10
Linked to traditional course (1 credit add-on)	20+	30	1	5
Required component of regular course (no extra credit for service-learning)	20+	30	1	10

service with older adults; (c) directed small-group discussions during class time throughout the semester or in addition to regular class meetings; (d) weekly journal-writing assignments; and (e) assigned short papers dealing with issues pertinent to their placement experiences (e.g., quality of life, economic and social costs of long-term care, public policy and aging). In addition to these planned reflective activities, students were encouraged to discuss issues that arose in their placements both during class time and in individual meetings with faculty members.

In the spring 1999 semester, service-learning was available to students in three courses: a Psychology of Aging class, from which 15 of 25 students elected to participate in a one-credit service-learning experience; a three-credit stand-alone seminar (6 students) that required service-learning with older adults; and a Sociology of Aging class, from which 4 of 23 students chose to participate in a one-credit add-on service-learning experience. Most of these 25 students were human development majors.

During the fall 1999 semester, students from six different classes chose service-learning. These included 3 students from a section of first-year English Composition and 45 sophomores and juniors from Fundamentals of Gerontology. The remaining students also were juniors and seniors: 23 from Communications and Aging, 2 from a Human Services and Policy class, 1 from Women's Studies, and 5 from a stand-alone three-credit service-learning seminar. Three students did not complete the final evaluation and were excluded from the sample totals.

Students' reactions service-learning were obtained at both the beginning and end of each of the two semesters. Students were surveyed about their initial feelings toward service-learning at the beginning of the semester. They were asked to share their perceptions of and reactions to the service-learning requirement during informal class discussions with the investigators. At the end of each semester, students were asked as part of their final written course evaluations to identify "three things which you learned from your service-learning experience

this semester." Not all students identified three things learned; some limited their responses to one overall summary statement.

## RESULTS

### Students' Initial Reactions to Service-Learning

Students' to service-learning initial reactions were predictable: Students were less than enthusiastic when service-learning was offered as an option and even somewhat angry when it was required as part of a course. Several issues were identified by students as troublesome: (a) time commitment (b) implementation, (c) developing relationships with older adults, (d) reluctance because of previous negative experiences, and (e) fears of negative reactions and other emotional issues.

Although some students appreciated the opportunity to become more involved in experiential learning and participate in service activities with older adults, the majority did not welcome any additional course requirements. Some students grumbled about their heavy commitments to school, work, family, and others, with many voicing strong concern about how they could fit service-learning into their already overloaded schedules.

A second concern expressed by students focused on issues of implementation. Student comments centered on transportation problems, difficulties making contact with professional staff members and worries regarding establishing relationships with staff members and being accepted as helping volunteers. Some students had questions about whether they possessed the requisite skills to be effective, supportive adjuncts to professional staff members.

A third area of concern centered around students' concerns that they would have difficulty developing relationships with unrelated older adults. They worried about what to say, what they would have in common with older adults, and what kinds of assistance would be needed. They questioned whether they had the personal competence and self-efficacy necessary to be successful and effective in meeting their responsibilities.

The fourth and fifth areas of concern for students entering the service-learning program were (a) reluctance due to previous negative experiences with nursing homes (e.g., "I used to visit my grandmother in a nursing home; I always hated going and the smells.") and (b) fears about managing their emotional reactions to seeing older adults in wheelchairs or in the final stages of Alzheimer's disease. Some students were uncomfortable with the idea that the persons with whom they

would work might die during the semester, whereas others expressed difficulty with dealing cognitively and emotionally with both their own futures and the adults older who would be facing the challenges, vulnerability, and mortality.

In response to these initial negative reactions to service-learning, faculty members engaged in several class discussions with students, letting students know that their misgivings were very common and quite natural given that many of them had had limited experience interacting with elderly adults. Instructors outlined myths, misconceptions, and negative societal stereotypes about aging and care facilities and asked students to reflect in writing how their personal stereotypes about aging may have influenced their approach to service-learning. These class discussions ended with “pep talks” for students to assure them that they were competent, caring individuals who would be making a very positive difference in the lives of the older adults they would be visiting. Students also were encouraged to get started with their placements right away so that they would not be scrambling to complete their placement hours at the end of the semester.

### Students' Final Reactions to Service-Learning: Themes

Qualitative content analysis of students' written responses to the request for the identification of three things learned from the service-learning experience involved multiple steps of coding for emergent themes. First, the principal investigator read through the 151 student responses several times to gain an overall sense of their content. Preliminary themes separated comments into three categories: (a) increased knowledge about course content through firsthand experience, (b) the service-learning experience itself, and (c) students' increased knowledge about themselves as service-learning volunteers. Subsequent codings separated each preliminary category into two emergent themes, for a total of six categories. All responses were compared with each theme and grouped under the category deemed to be the best match. The data then were given to the second investigator for sorting the six theme categories and unsorted student responses, with a resulting interrater agreement of 97% on assignment of statements to theme categories. The theme categories are discussed below in order of frequency of response types, from most to least common.

#### *Insights About Aging*

The first theme, Insights About Aging (40 statements), included realization of the diversity in aging and among older adults as well as a sense of surprise at how similar older adults are to students and an



acknowledgment of the importance of support to and respect for older adults. Some students confessed that they had previously held many of the negative stereotypes about aging discussed in class, but that their placement experiences had not only changed their minds, they now felt the need to educate others regarding such misconceptions about older adults. The following are typical responses:

- “Individual differences exist among the elderly in (a) health, (b) interests, (c) personalities.”
- “I can see just how important social and family support is for the elderly.”
- “Elderly people do not deserve pity, but our respect and admiration.”
- “The elderly are no different from anyone else—they still need love, support and companionship.”
- “Not everything that they do or say is because they are old.”
- “Older people enjoy doing many of the same things they used to do when they were younger, but they may not do them as well or as quickly.”
- “Growing old is not that bad.”
- “[I] learned that the elderly are not weak or cognitively confused and deficient.”

### *Personal Growth and Understanding*

The second most common theme expressed by students, Personal Growth and Understanding (34 statements), summarized students' revelations about themselves, including their personal strengths and limitations. Many expressed great pride in having made a difference in the lives of others, and they were touched that just a small effort on their part made such a positive impact:

- “I learned that I really did make a difference.”
- “[I] saw how important it was to show an interest in them and their lives. It made them feel special, and in turn I felt special.”
- “Service-learning helped me initiate conversations with my own grandmother; I know that [otherwise] these conversations would never have taken place.”
- “[I] felt pride in my successful accomplishments through service-learning.”
- “[I] learned that I am a good listener, how to come to grips with death and the process of grief, and how to be more patient.”
- “I am not so frightened about aging after my experience.”
- “I was able to touch someone who loved the attention I gave her.”
- “I have learned that just as a person's presence can help another person, you don't have to do much to help an older person . . . just being with them and sharing time helps.”

### *Service and Volunteering*

The third most common theme for students, Service and Volunteering (27 statements), involved their thoughts on the significant

value of even minimal efforts to reach out to older adults in the community and the importance of community support for older adults who may not have family nearby. Some students vowed to continue their volunteer efforts after the end of the course, during school vacations, and following graduation. Student responses included the following:

- “Elderly adults need a sense of the outside world through volunteers and staff [connections].”
- “Without volunteers, many activities in nursing homes and many personal contacts with the elderly would be nonexistent.”
- “[I learned] how to get started as a volunteer with the elderly in any agency, in any community.”
- “[I] learned that volunteer work is more important than just a grade.”
- “Working with the elderly can be difficult but rewarding; through my service/volunteering I was able to enhance the life of an elderly person and his family.”
- “Anyone can make a difference in the lives of the elderly if they volunteer.”
- “The community should play a bigger role in meeting the needs of the elderly.”

### *Long-Term Care*

The fourth theme category, Long-Term Care (23 responses), reflected students' impressions of the varying types and quality of long-term care facilities, the strengths and weaknesses of nursing home environments and management, and an appreciation for the difficult jobs performed by those who care for elderly adults. Student reflections included the following:

- “[I] learned how different nursing homes, assisted-care, and other long-term care are from one another.”
- “There are different styles and qualities in nursing homes; they are not all alike.”
- “Certain kinds of facilitated living outweigh the downside of older people living alone.”
- “I was happy that the place I was in was very nice and comfortable for these people; it changed my views of old age homes greatly.”
- “Even the nicest-looking homes have their problems.”
- “People who work with the elderly are underappreciated.”
- “There needs to be more time built into the day-to-day schedule for staff to interact with the elderly residents.”
- “I learned a lot about nursing home life in general; I didn't know much about what it was living in one... it seems like a small community within a larger one.”
- “I learned that the resident's attitude makes a big difference in their experiences in the nursing home.”

### *Career Skills and Consolidation*

The fifth theme category, Career Skills and Consolidation (17 responses), reflected the significant introspection of students as they considered future career options and the increases they had made in skill acquisition. Some students discovered talents and preferences for working with older adult that they had not known they had. Others realized that careers in gerontology were not right for them. For example:

- “I am now interested in a career as a recreational therapist with the elderly.”
- “[I] developed skills and confidence in working with the elderly.”
- “This made me decide that I do not want to go into this field.”
- “[I] learned first-hand what the position of Activities Director/Recreation Director is like.”
- “[I] learned many new skills to help manage Alzheimer’s patients.”
- “I increased my abilities to relate to and understand the elderly.”
- “I would like to continue; surprise! I enjoyed service-learning and working with the elderly.”
- “I am a pretty good candidate to work with the elderly.”

### *Integration of Course Work with Service-Learning Experiences*

The final theme category for students’ responses, Integration of Coursework with Service-Learning Experiences (10 statements), demonstrated synthesis between what was discussed in texts and lectures with students’ placements. As illustrated in the following comments, connections were made between theory and application:

- “I discovered I had more knowledge about aging and issues related to the elderly than I thought.”
- “[I found] direct support for the facts of aging I was learning in class.”
- “I got to learn a lot both ways about getting old.”
- “I could relate what the professor said in class to [what was happening with] my elderly service-learning placement.”
- “I saw directly what we learned about the effects of Alzheimer’s disease on family caregivers.”
- “Alzheimer’s disease, as we talked about [in class] is very individual; hard to form generalizations.”
- “I learned more firsthand about the medical diseases and issues from class.”

## **DISCUSSION**

Students’ qualitative responses to their involvement in service-learning showed new insights about older adults and the process of aging, and

greater understanding of a range of long-term care issues. They were able to overcome their initial misgivings about participation in service-learning. Many even expressed somewhat embarrassed gratitude for being encouraged to stay in the program. Students were able to shed some of the traditional cultural stereotypes about older adults and see them as unique individuals with special abilities, talents, experiences, and sensitivities rather than simply part of an age group. Hegeman and Pillemer (1999) noted a similar theme in their analysis of student reactions to service-learning: "(students) had a greater appreciation for the experiences and history of elderly people, more respect for them, a greater understanding of the problems they face, and a greater enjoyment in being with them" (p. 6).

Students also showed heightened sensitivity to the importance of service on behalf of and volunteering with older adults. They seemed shocked at the degree of isolation faced by many older adults, even in those in heavily populated urban and suburban communities. Students were more disturbed by encountering older adults who received no regular visitors than by any other part of their service-learning experience, and this observation was often mentioned in their reflections.

Finally, students recognized their own emerging competence in successfully meeting the challenges of working with older adults. They were somewhat surprised to find that they could make a significant difference in someone's life using skills and abilities previously unknown to them; interpersonal communication skills, patience, and empathy often were mentioned as newly acquired outcomes of service-learning experiences. Many students became aware of the complexity of the problems faced by older adults, the difficulty of developing solutions, and the importance of their contributions. Some also reflected on their enjoyment in the service activity itself and their willingness to explore gerontology as a career option, whereas others found that they would feel more comfortable working with individuals in younger age groups.

These results were consistent with the course objectives, indicating, at least from the students' anecdotal perspectives, that service-learning experiences helped students academically in that they better understood the concepts of gerontology being presented through texts and lectures and were able to apply them in real-world, personal contexts. This echoes the work of Eyler and Giles (1999), who broadened the definition of academic learning beyond the factual knowledge demonstrated on exams to include a "greater depth of understanding and greater ability to apply what they have learned" (p. 68).

By semester's end, it was common for students to ask why Service-Learning was not a regular part of the curriculum and integrated into

more courses and why service-learning was not made available to them earlier in their college experience. Thus, although students initially grumbled about the workload and expressed concern regarding finding the time needed for service-learning, most students indicated by the end of the semester that they valued the experience greatly. A typical response was, "I'm so glad I did service-learning. . . . I learned so much I never would have gotten in the classroom!" Nevertheless, when students were asked whether they would have chosen to do service-learning on their own, without some pressure from a faculty member or a course requirement to do so, most confessed that they probably would not have elected to participate in this form of experiential learning if left to their own devices.

## STRATEGIES TO OVER COME RESISTANCE

There are several strategies that be appropriate to help overcome students' initial reluctance to participate in service-learning. For example, mentioned earlier was the practice of having faculty members provide students with a pep talk and encouragement before they chose their placements. This may be expanded to include fellow students as mentors who initiate newcomers into the service-learning experience. Because service-learning is relatively new, it may be that it has not yet received enough word-of-mouth validation from students who have participated in it to encourage those who have not. One practice just recently tried at SUNY Oswego that seems to have helped in this regard is having students from the previous semester's service-learning class come as guest speakers to small-group meetings before placement sites are selected to provide incoming students with pointers, reassurance, and encouragement. These service-learning veterans exuded so much enthusiasm for the program that there was an almost tangible reduction in the tension level in the classroom.

Another strategy that may be helpful in reducing students' resentment of what they view as additional course work is the availability of a variety of placements from which students have complete freedom to choose the placement with which they feel most comfortable. Stukas, Clary, and Snyder (1999) noted that "providing greater freedom to students to choose their service activities and related program features might attenuate some of the negative impact of requiring participation" (p. 7). Putting students in charge of finding and following through with their placements could impart a sense of collegial treatment from faculty members, which could increase students' desires to live up to their responsibilities (Eyler Giles, 1999).

For students who are especially nervous about going into a facility unknown and alone, it may be helpful to have a fellow student go along on team visits. For example, in one group home for older women, students visiting in pairs became regular members of afternoon card parties. The students reported that although they seldom won, they were very popular for completing the table and providing the older women with an opportunity to teach the games they loved so much. Additionally, Stukas et al. (1999) reported that students who worked in pairs on service-learning projects were more likely to show increases in social responsibility and indicate future plans to continue service to others than students who served alone.

Another factor that can affect students' overall reactions to service-learning is the level of safety they feel in sharing their thoughts and emotions about service-learning and aging issues. Ideas and emotional responses in students' reflective journals and class discussions need to be safe from criticism, ridicule, and emotional responses from both faculty members and fellow students. According to Eyler and Giles (1999),

"Students need considerable emotional support when they work in settings that are new to them; there needs to be a safe space where they know that their feelings and insights will be respected and appreciated. As their service develops and their questions become more sophisticated, they need intellectual support to think in new ways, develop alternative explanations for experiences and observations, and question their original interpretation of issues and events." (p. 185)

In conclusion, service-learning is an important trend in curricular development connecting theory to practice and linking individuals, colleges, universities, and communities as partners for the betterment of all. It can enhance the curricular goals of gerontology courses and programs while encouraging students' development of civic responsibility. After initial misgivings and feelings of apprehension are overcome, service-learning can be one of the most rewarding and meaningful academic experiences students have in their college careers.

## REFERENCES

- Astin, A. W., & Sax, L. J. (1998). How undergraduates are affected by service participation. *Journal of College Student Development, 39*, 251-263.
- Astin, A. W., Vogelgesang, L. J., Ikeda, E. K., & Yee, J. A. (2000). *Executive summary: How service-learning affects students*. Los Angeles: Higher Education Research Institute.
- Boyer, E. (1994, March 9). Creating the new American college. *Chronicle of Higher Education*, p. A48

- Bingle, R. G., & Hatcher, J. A. (1996). Implementing service-learning in higher education. *Journal of Higher Education, 67*, 221–239.
- Eyler, J., & Giles, D. E. (1999). *Where's the learning in service-learning?* San Francisco: Jossey-Bass.
- Gray, M. J., Ondaatje, E. H., & Zakaras, L. (1999). *Combining service and learning in higher education: Summary report*. Santa Monica, CA: Rand Corp.
- Hegeman, C. & Pillemer, C. (1999, November). Impact of service-learning in elder care. Paper presented at the Annual Scientific Meeting of the Gerontological Society of America, San Francisco.
- Neururer, J., & Rhoads, R. A. (1998). Community service: Panacea, paradox, or potentiation. *Journal of College Student Development, 39*, 321–330.
- Rhoads, R. A. (1998). In the service of citizenship. *Journal of Higher Education, 69*, 277–297.
- Stukas, A. A., Clary, E. G. & Snyder, M. (1999). Service-learning: Who benefits and why. *Social Policy Report, 13*(4), 1–23. Ann Arbor, MI: Society for Research in Child Development.
- Zlotkowski, E. (Ed.). (1998). *Successful service-learning programs: New models of excellence in higher education*. Bolton, MA: Anker.